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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Denis Eugene

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EXAMINER

LEONARD, MICHAEL L

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

05/22/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,606	Applicant(s) EUGENE ET AL.	
	Examiner MICHAEL LEONARD	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-29, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-29, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,251,988 to *Blum et. al.*

As to claims 17, 18, 22-26, 27-29 Blum discloses a coating containing a polyurethane resin (Column 2, lines 44-48) and a method for its production comprising the reaction product of a) polyether polyols (Column 3, line 5) with molecular weights in the range of 500 to 16,000 (Column 3, line 64), b) a low molecular weight diamine chosen from ethylene diamine or isophorone diamine (Column 5, lines 39-40), c) aliphatic diisocyanates (Column 4, lines 47-52), d) a low molecular weight diol with a molecular weight between 32 to 500 g/mol (Column 4, line 47-52), and an e) amine chain terminating agent (Column 5, lines 37-42) wherein the ratio of isocyanate to isocyanate-reactive groups is approximately 4:1 to 1.2:1 (Column 4 lines 31-34).

Blum further discloses that the components a)-d) are added together at a temperature between 60 to 120°C and during the chain extension step the temperature is lowered from room temperature to 60°C (Column 6, lines 31-36 and Column 7, Example 1) and that the molecular weight of the polyurethane coating is preferably between 4,000 and 500,000 (Column 6, lines 63-64) and that coating composition

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comprises a solvent (Column 6, lines 40-45). Blum further discloses that the polyurethane can be applied to plastic substrates and are useful in ink printing laminates (Column 7, lines 7-9, 21-32).

Blum is silent on the degree of urethanisation between 20 and 30%, in claim 23. In view of the substantially identical compositions, the composition would possess the claimed 20 and 30% degree of urethanization. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. **In re Best**, 562 F. 2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

Blum does not expressly disclose a mixture of the diamines, but does disclose that one or more of the diamines may be chosen from a list of 5. Blum discloses that one or more of the chain extending diamines may be used in the chain extension step. Even though Blum does not disclose in his examples a combination of the two, the specification suggests that one or more of the diamines may be used in the chain extension step (Column 2, lines 30-36 and Column 5, lines 36-43). Furthermore, "a reference may be relied upon for all that it would reasonably suggest to one having ordinary skill in the art, including nonpreferred embodiments." (*Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.)) Furthermore, there are a limited number of combinations that can be chosen from a list of 5, roughly 20, which renders the claims obvious in view of Blum.

Claims 31-32 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent No. 6,251,988 to *Blum et. al.* in view of U.S. Patent No. 6,642,343 to *Gilles et. al.*

Blum et. al. and House et. al do not expressly disclose a laminate carrying a printed layer and the method of producing.

Gilles et. al. discloses polyurethane coating composition useful for creating a laminate by applying the polyurethane ink composition to a plastic substrate, followed by application of an adhesive on the dried and/or cured polyurethane layer and finally to the adhesive with a covering layer and producing the laminate by applying at least a second substrate on the adhesive (Column 19, lines 5-30). The transitional phrase obtained by is treated as comprising language and as such, the polyurethane composition may contain other components such as high molecular weight polyols as well as low molecular weight polyols as disclosed by Gilles et al.

Blum et. al. and Gilles et. al. are analogous art because they are from the same field of endeavor with respect to polyurethane coating compositions based on the reaction product of polyether polyol, butanediol, isophorone diamine, and optionally chain terminating compounds.

At the time of the invention one would have found it obvious to use the composition of Blum in the method of Gilles, since Blum teaches polyurethane solutions useful as coatings with good adhesive properties, a particularly pleasant feel, very good water resistance or waterproof character, low degree of swelling in water, and outstanding wearer comfort (Column 2, lines 1-15), which would be advantageous to a

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laminate as produced by Gilles because Gilles discloses that the coating compositions for laminates have to satisfy high standards. The high standards include required adhesive strength both to the underlying substrate and to the adhesive layer, dried layer stability during and after sterilization processes or treatment in boiling water, and the layer must show blocking resistance and stability during sealing of the laminate (Column 1, lines 38-50), which the polyurethane coating as disclosed by Blum possesses.

Response to Arguments

Applicant's arguments with respect to claim 17-32 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEONARD whose telephone number is (571)270-7450. The examiner can normally be reached on Mon-Fri 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL LEONARD/
Examiner, Art Unit 1796

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796

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